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**Product Datasheet**

*Chickens make better antibodies.*

# Anti-Amyloid Precursor Protein (APP), Peptide #3, #4, #5 Antibody

## Overview

| | |
|---|---|
| **Catalog #** | APP345 |
| **Concentration** | 300 μg/mL |
| **Host Species** | Chicken Polyclonal |
| **Format** | Affinity-Purified IgY |
| **Buffer** | Phosphate-buffered (10 mM) isotonic (0.9%, w/v) saline ("PBS," pH 7.2) with sodium azide (0.02%, w/v) added as a preservative. |
| **Applications** | IHC 1:500-1:1000    ICC 1:500-1:1000 |
| **Species Reactivity** | Human, Mouse, and Rat |
| **Immunogen** | Synthetic peptides (QHF QEK VES LEQ EAA NER AA {residues #433-452}, EQK DRQ HTL KHF EHV RMV DPK K {residues #501-522}, EEI QDE VDE LLQ KEQ NYS DD, residues #556-575}) from the human APP gene product |
| **Molecular Weight** | 87 kDa |
| **Cite this Antibody** | Aves Labs Cat# APP345, RRID: AB_2797315 |

## Images
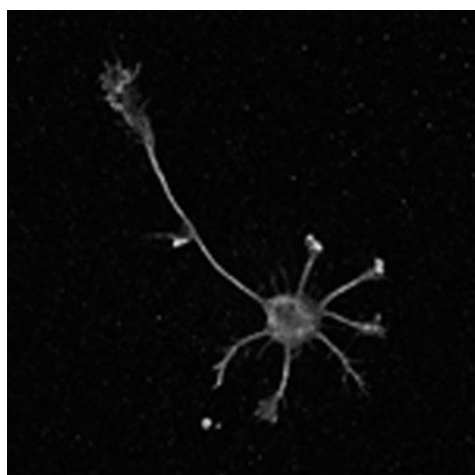


Amyloid Precursor Protein (APP), Peptide 3, 4, 5

## Details

**Target Description**     Amyloid Precursor Protein (APP, UniProt Accession Number P05067) is a 770 amino acid, single-pass transmembrane protein whose beta-amyloid proteolytic fragment can form neurotoxic extracellular accumulations in human cerebral cortex, and is widely believed to be the cause of Alzheimer's dementia. However, the normal function of APP itself is still obscure, as are potential functions of various proteolytic fragments that have been observed in human brain [Muller, U.C., Deller, T., Korte, M. (2017) Nature Reviews Neuroscience 18: 281-298)]. To better understand these functions, we have made a set of five anti-peptide antibody reagents against APP. One of the peptide sequences used is within the beta-amyloid fragment and recognizes the extracellular amyloid plaques observed in Alzheimer's patients' brains (see Cat.# ABN). Three other peptide sequences used, however, are within the extracellular domain of APP outside of this domain, and are useful for identifying the APP protein itself, and various proteolytic fragments, rather than the beta-amyloid peptide and plaques.

**Purification Method**     Chickens were immunized with keyhole limpet hemocyanin (KLH) conjugates of three different synthetic peptides (named #3, #4 and #5). Peptide #3 is QHF QEK VES LEQ EAA NER QQ (which corresponds to residues #433-452 of the human sequence NP_000475.1); peptide #4 is EQK DRQ HTL KHF EHV RMV DPK K (residues #501-522); peptide #5 is EEI QDE VDE LLQ KEQ NYS DD (residues #556-575). It should be noted that these three peptide sequences are 100% identical with the mouse (P12023.3) and rat (P08592.1) gene products. After repeated injections, immune eggs were collected from the hens, and the IgY fractions were purified from the yolks. These IgY fractions were then affinity purified against each of the three cognate peptides using agarose affinity matrices. The eluate concentrations were then adjusted to 300 μg/mL, mixed in equimolar concentrations (100 μg/mL is the final concentration of each antibody), and the preparation was filter-sterilized.

**Quality Control Tests**     This anti-peptide antibody mixture was analyzed by immunohistochemistry (at a dilution of 1:1000) using fluorescein-labeled goat anti-chicken IgY (1:500 dilution, Aves Labs Cat.# F-1005) as the secondary reagent.

**Storage**     Store at 4°C in the dark. Under these conditions, the antibodies should have a shelf life of at least twelve months, provided they remain sterile. For longer term storage, aliquot and freeze to avoid freeze-thaw of the antibody.

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As an original manufacturer, we are dedicated to creating quality and reproducible antibodies that further your research. We provide personalized customer support from the scientists that made the antibody and offer a free replacement or 100% refund if we cannot resolve an issue. Order today and experience how chickens make better antibodies.

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